REMARKS

In response to the Office Action mailed December 17, 2004, Applicant respectfully requests reconsideration. Claims 1-14 were previously pending in this application. Claims 3, 4, 7, 10, 11, and 14 were indicated to be allowable if rewritten in independent form. Claims 1 and 8 are amended herein and new claims 15-18 have been added. The application as presented is believed to be in condition for allowance.

It should be appreciated that the amendments to claims 1 and 8 are made solely for the purpose of clarification and are not intended to alter the scope of the claims. Thus, these amendments raise no new issues that would require further search and/or consideration.

Summary of Embodiments Of Applicant's Invention

An example of one embodiment of Applicant's invention is described below to highlight some aspects of the invention. This embodiment is described primarily in Applicant's specification at page 8, lines 20-26 and page 35, line 25 – page 38, line 13. It should be appreciated that the description below is merely an example of one of many embodiments that fall within the scope of Applicant's claims and is provided merely for the purpose of highlighting some aspects of Applicant's invention.

An aspect of the invention is directed to a system which determines a receiver scan strategy for detecting emitters. In some situations the receiver may be operated in proximity to a jammer transmitter that "jams" one or more emitters (Applicant's specification, page 8, lines 20-22). According to one aspect of the invention, it is realized that a jammer may have an effect on detection of one or more signals by the receiver, and therefore it may be beneficial to consider activity of a jammer in determining an optimum scan strategy (Applicant's specification, page 8, lines 23-26).

Applicant has appreciated that when a jammer is on, the jammer signal affects the frequency band in which it transmits, and adjacent bands in which harmonics are produced by the jammer signal (Applicant's specification, page 36, lines 7-11). Additionally, for a jammer to be effective, it should be operating as continuously as possible, so that it can reduce the possibility that the vehicle in which the detection system exists cannot be detected by a threat that produces an emitter signal to be "jammed." (Applicant's specification, page 36, lines 11-14).

Therefore, it may be desirable to minimize the amount of time the jammer is off, but also allow the receiver to operate in the frequency bands affected by the jammer signal, such that the detection system can detect the emitter signals (Applicant's specification, page 36, lines 14-19).

In one embodiment, a Receiver Blanking Table and a Jammer Blanking Table are employed, which map the frequency ranges to band index numbers, and define which bands are simultaneously affected by a jammer active in a single band and receiving system (Applicant's specification, page 37, lines 23-28). Using the blanking tables, it may be determined if any of the emitters to be detected are within the frequency range of the jammer (Applicant's specification, page 37, line 30 – page 38, line 3). If it is determined that there are emitters to be detected that are affected by the jammer, the jammer, in the common bands, may be paused for a period of time while the receiver "looks" for signal(s) (Applicant's specification, page 38, lines 4-7).

The foregoing summary is provided merely to assist the Examiner in appreciating various aspects of the present invention. The summary may not apply to each of the independent claims, and the language of the independent claims may differ in material respects from the summary provided. The Examiner is requested to give a careful consideration to the language of each of the independent claims and to address each on its own merits, without relying on the summary provided above. Applicant does not rely on the summary to distinguish any of the claims of the present invention over the prior art, but rather, relies only upon the arguments provided below.

Rejections Under 35 U.S.C. §102

The Examiner rejected claims 1, 2, 5, 6, 8, 9, 12 and 13 under 35 U.S.C. §102 as being anticipated by Winn (3,670,333) or Garrison (4,173,760). Applicant respectfully traverses each of these rejections.

The Office Action asserts that, "the claims, as best understood, are considered to be met by Winn ('333) or Garrison ('760) who disclose a system for detecting jamming emitter signals." Initially, Applicant notes that the Examiner refers to the claims "as best understood." Applicant believes the claims are clear and assumes that the Examiner has a full understanding of the claims. If the Examiner does not believe that the claims are clear, the Examiner is respectfully requested to point to the specific language that is believed to be unclear.

Moreover, Applicant notes that, other than the blanket statement in the Office Action that Winn or Garrison purportedly discloses a system for detecting jamming emitter signals, the Office Action does not provide any detail on which portions of Winn or Garrison are believed to be relevant to each limitation of Applicant's claims. If the rejection is to be maintained, Applicant respectfully requests that the Examiner provide an explanation of how the references are being applied, with citation to the relevant portions of the references.

Discussion of Winn (3,670,333)

Winn discloses an automatic sweep jamming system having a high duty cycle and rapid acquisition rate for jamming victim transmission systems (Abstract). The jamming system of Winn operates in two different modes: a fast sweep mode and a slow sweep mode (Col. 1, lines 42-47). In the fast sweep mode, the oscillator of the jamming transmitter is employed as a receiver local oscillator and is swept very rapidly to look for a victim signal (Col. 3, lines 56-60). When the receiver local oscillator detects a signal, the system changes modes and operates in the slow sweep mode (Col. 1, lines 46-49). In the slow sweep mode, the jamming system is used to jam the victim signal while passing through the frequency band of the victim signal (Col. 3, lines 61-64). When the jammer transmitter is in the slow sweep mode, the receiver is shut off (Col. 4, lines 27-30). After the jammer transmitter passes through the frequency band of the victim signal, the system returns to fast sweep mode (Col. 3, lines 64-65).

Thus, Winn discloses subordinating the jammer to the receiver. That is, in the system of Winn, the jammer does not radiate unless the receiver detects something.

Discussion of Garrison (4,173,760)

Garrison discloses a method and apparatus for effecting, in a passive manner, the acquisitioning of a broadband barrage jammer type radar target, by detecting the differential delay between the barrage signal as received at a predetermined location over direct and indirect paths and producing a signal distinctly identifying the location of the jammer target relative to the receiving station (Abstract). The location of the jammer is identified by measuring the differential delay between the barrage signal as received over two distinct paths of different lengths, in terms of the time delay of a compressed pulse which is formed as a result of the cross-correlation of the frequencies and phases of the two received signals (Col. 1, lines 29-34). The

two paths are constructed via a primary radar apparatus and an auxiliary radar and repeater apparatus which is capable of receiving the jammer noise signal and relaying it on to the primary apparatus over an indirect path. Solving for the difference in lengths between the direct and indirect path provides a solution for a location range of the jammer (Col. 2, lines 23-55). Thus, Garrison is directed to tracking the source of a jammer and is entirely unrelated to the problem of operating a jammer and receiver in conjunction.

Claim 1

Claim 1 is directed to a method for use in detecting emitter signals. The method comprises acts of determining, for at least one emitter, a period at which a jamming signal is applied and determining, for the at least one emitter, a detection period, wherein the act of determining the detection period is based on the period in which the jamming signal is applied.

Claim 1 patentably distinguishes over both Winn and Garrison as neither reference discloses or suggests, "determining, for at least one emitter, a period at which a jamming signal is applied" and "determining, for the at least one emitter, a detection period, wherein the act of determining the detection period is based on the period in which the jamming signal is applied."

As discussed above, Winn discloses an automatic sweep jamming system, but does not disclose that the operation of the receiver used to detect signals from the victim is altered based on the operation of the jammer. Rather, Winn discloses that the operation of the jammer is based on the receiver (i.e., when the receiver detects a victim signal). Thus, in Winn the jammer is subordinated to the receiver, rather than determining a receiver detection period based on the period in which the jamming signal is applied. Therefore, Winn does not disclose determining a detection period, "based on the period in which the jamming signal is applied," as recited in claim 1.

Further, Garrison is directed to an entirely different problem. That is, Garrison is directed to identifying the location of a jammer target relative to the receiving station. Garrison does not disclose detecting an emitter which is being jammed but rather discloses detecting a jammer itself. There is not disclosure or suggestion in Garrison of determining a detection period for an emitter based on the period in which the jamming signal is applied, as Garrison is not ever directed to operating a jammer and receiver in conjunction.

Thus, claim 1 patentably distinguishes over Winn and Garrison. Accordingly, it is respectfully requested that the rejection of claim 1 under 35 U.S.C §102 be withdrawn.

Claims 2, 5, and 6 depend from claim 1 and are patentable for at least the same reasons. Accordingly, it is respectfully requested that the rejection of claims 2, 5, and 6 be withdrawn.

Claim 8

Claim 8 is directed to a computer-readable medium having computer-readable signals stored thereon that define instructions that, as a result of being executed by a computer, instruct the computer to perform a method for use in detecting emitter signals. The method comprises acts of determining, for at least one emitter, a period at which a jamming signal is applied and determining, for the at least one emitter, a detection period, wherein the act of determining the detection period is based on the period in which the jamming signal is applied.

As should be appreciated from the discussion, neither Winn nor Garrison discloses or suggests, "determining, for at least one emitter, a period at which a jamming signal is applied" and "determining, for the at least one emitter, a detection period, wherein the act of determining the detection period is based on the period in which the jamming signal is applied."

Thus, claim 8 patentably distinguishes over Winn and Garrison. Accordingly, it is respectfully requested that the rejection of claim 8 under 35 U.S.C §102 be withdrawn.

Claims 9, 12, and 13 depend from claim 8 and are patentable for at least the same reasons. Accordingly, it is respectfully requested that the rejection of claims 9-14 be withdrawn.

Newly Added Claims

Claims 15-18 are newly added in this application and introduce no new subject matter. Claims 15 and 16 depend from claim 1 and are patentable for at least the reasons discussed above in connection with claim 1. Claims 17 and 18 depend from claim 8 and are patentable for at least the reasons discussed above in connection with claim 8.

CONCLUSION

A Notice of Allowance is respectfully requested. The Examiner is requested to call the undersigned at the telephone number listed below if this communication does not place the case in condition for allowance.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 23/2825.

Respectfully submitted,
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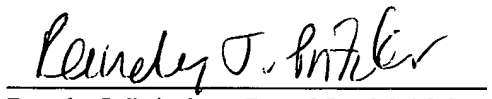
By: 

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